

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

TATEISHI *et al.*

Application No. 10/577,375

Filed: February 12, 2007

Conf. No. 6219

Art Unit: 1651

Examiner: Irene MARX

Attorney Docket No.: 09-164-US

**FUNGUS HAVING ACTIVITY OF
CONTROLLING DISEASE OF
GRAMINEOUS PLANT, CONTROLLING
AGENT USING THE SAME, METHOD OF
CONTROLLING AND BIOLOGICAL
MATERIAL**

Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION OF HIDEAKI TATEISHI UNDER 37 C.F.R. § 1.132

I, Hideaki TATEISHI, hereby declare as follows:

1. That I am a citizen of Japan residing at c/o KUREHA CORPORATION, 16, Ochiai, Nishiki-machi, Iwaki-shi, Fukushima-ken, Japan.
2. That I graduated from Agricultural Chemistry, School of Agriculture, Meiji University on March 1986 and completed the master's course in Agricultural Chemistry of Meiji University on March 1988.
3. That I am presently an employee of KUREHA CORPORATION, have been an employee thereof since 1988 and am presently engaged in the research and development of agricultural chemicals as Chief Researcher of Research Center.
4. That U.S. Patent Application No. 10/577,375 filed on April 28, 2006 and having a §371 date of February 12, 2007 is assigned to KUREHA CORPORATION and I am one of the inventors of the application.
5. That I conducted a search of the base sequence in the ITS region of 5.8S-rDNA. From the base sequence in that region, the filamentous fungus may be genetically classified or identified. I also conducted BLAST homology searches using databases in GenBank/DDBJ. The following results were obtained.

| Species | Accession no. | Homology against B-422 |
|---------------------------------|---------------|------------------------|
| <i>Penicillium verruculosum</i> | AF510496 | 98.5 |
| <i>Penicillium pinophilum</i> | AF176660 | 99.0 |
| <i>Talaromyces flavus</i> | U18354 | 98.3 |

6. That based on those data, I conclude that fungal strain B-422 may be predicted as being genetically closer to some fungi rather than *Talaromyces flavus* based upon the base sequence of B-422. Nonetheless, those fungi have genetic sequences that are distinct from B-422.
7. That from a morphologically based classification, B-422 belongs to the *Talaromyces* genus, which is related to *Talaromyces flavus*. However, the bootstrap value (which reflects phylogenetic homology) comparing B-422 and *Talaromyces flavus* is 69. That score is very low and indicates to me that the two fungi are not the same species.
8. That, finally, based upon my scientific background and expertise, the infection route and mechanisms of infection for soil-borne diseases (e.g., verticillium wilt of eggplant) are entirely different from those of seed-borne diseases.

That all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Signature: Hideaki Tateishi

Name: Hideaki Tateishi

Date: April 12, 2011